Talking Points for EPA's Bay-Delta Action Plan *(DRAFT)*

EPA's Federal Role: EPA's role under the federal CWA is to protect our nation's water quality and to ensure our waterways can support healthy populations of fish and other aquatic life.

EPA's Partnership with the State of California: EPA partners with the State Water Resources Control Board (State Water Board) to ensure that federal and State water quality protection programs fully protect the Delta's *beneficial uses*, e.g., fish & wildlife drinking water, irrigation water, and recreation. Under the federal CWA, the State Water Board and nine Regional Water Boards have the lead in protecting California's water quality. EPA reviews and, in some instances, must approve State and Regional Water Board actions. EPA also provides substantial financial assistance to the Boards. We have a strong relationship with the Water Boards, and the State's technical and policy staffs are doing admirable work. Nevertheless, the Boards are severely underfunded for the challenges they face, and given the conflicting interests in the Delta, their work has always been controversial. EPA will continue to provide steady support as the Water Board works to strengthen the standards needed for restoration of Delta water quality.

EPA Investments in State Water Quality Programs: EPA provides the State Water Board with annual funding for implementing Clean Water Act programs statewide. In FY12, EPA awarded $123,547,800 to the State, including a $101 million State Revolving Fund capitalization grant, and other grants under the authority of CWA Sections 106, 319 and 604.

ANPR and IFAP: EPA issued an *Advance Notice of Proposed Rulemaking* (February 2011) as a first step in assessing how well CWA programs are protecting water quality for the benefit of aquatic species that use the Delta. This was a commitment in the *Interim Federal Action Plan* (December 2009) released by the six agency Bay-Delta Leadership Committee.

Action Plan: Today's Action Plan is a result of our assessment and it highlights actions that are urgently needed to restore water quality and improve management of the Bay Delta ecosystem. Based on our review of the programs outlined in the ANPR and the input we received from 55 commenters, we have concluded that CWA programs currently are not adequately protecting the aquatic resources of the Bay Delta Estuary.

Importance of Delta: California's economy needs a healthy and structurally sound Delta. The Delta provides drinking water to over 25 million residents, supports the State's $27 billion agricultural sector, provides recreation for 12 million user-days each year, and provides migratory habitat for two-thirds of the salmon that originate in California.

Impairments in the Delta: The Delta is on life support. All Bay Delta waters are impaired by one or more contaminant and the Delta has lost the water quality characteristics needed for a healthy estuary – a brackish (low salinity) zone, shallow

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water habitat and complex wetland channels, water column turbidity, and dissolved oxygen. Moreover, human activities have altered the olfactory cues that salmon use to return to their natal spawning grounds in the San Joaquin River basin, and have seriously degraded the cold water flows in the rivers that salmon need to spawn and migrate.

The State's Water Quality Control Plan (WQCP): EPA concludes, from the perspective of the CWA, that updating and implementing the State's Delta water quality standards is the most critical action for protecting aquatic life in the Estuary. These water quality standards have not changed since 1995, and pelagic fish populations have collapsed in the intervening 17 years. The Delta water quality standards define water quality goals and form the foundation for the State's implementation programs protecting the Estuary.

The State Water Board has begun this review, with the goal of adopting a new WQCP by next June. EPA is providing technical support to the State Water Board as it considers revisions to the WQCP. This support included EPA's hosting of a scientific workshop on the low salinity zone in March 2012.

Recent research shows that there is still a compelling scientific rationale for the current springtime (Feb-Jun) salinity standard, but also strongly suggests that additional protection is needed during other times of the year to fully protect estuarine habitat.

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EPA and the BDCP: The Bay Delta Conservation Plan (BDCP) is a Habitat Conservation Plan under the ESA being developed by the California Department of Water Resources and some of the larger water export agencies in collaboration with the federal Departments of the Interior and Commerce. In addition to limitations resulting from natural hydrology (i.e., drought), Delta water diversions are sometimes restricted to protect fish protected under the federal Endangered Species Act. The BDCP aims to restore the reliability of water supplies and the ecosystem of the Delta through two broad strategies: (1) a new water conveyance facility that draws water directly from the lower Sacramento River and bypasses the problematic Delta; and (2) restoration of thousands of acres of floodplains and wetlands in the periphery of the Delta for the benefit of fish populations.

EPA agrees that the current export facility configuration is not meeting the water supply reliability goals or the aquatic resource protection goals for the Delta. The BDCP is proposing an alternative. We will continue to partner with federal and State lead agencies to support the development of the BDCP, provide early input on NEPA documents, and to evaluate the impacts of the proposed conveyance system on Delta water quality.

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Delta Methylmercury TMDL: EPA has approved new State-established TMDLs (with new water quality objectives) for methylmercury across the Bay and Delta. Once implemented, the TMDLs will cut the concentration of the toxic metal in fish tissue, and result in greater protections for aquatic life and human health. The State Water Board is working to strengthen its statewide mercury water quality standards through developing standards based on acceptable levels of fish tissue concentrations that are protective of tribal, subsistence and/or cultural uses.

Addressing Methylmercury and Wetlands: The best way to simultaneously increase the amount of aquatic habitat available to fish, safeguard the Delta from catastrophic floods, and prepare for sea level rise is to restore wetlands in the Delta region. However, anaerobic chemical processes in wetlands and ricelands convert elemental mercury into methymercury - a toxic form of the metal which bioaccumulates in fish and in people who consume fish.

On Twitchell Island, EPA is partnering with USGS and DWR to explore ways for treating surface waters contaminated with methylmercury. Under experiments being initiated in the summer of 2012, aluminum- and iron-based coagulants will be added to the contaminated water to convert the methylmercury back into its less harmful elemental form. Furthermore, experiments will be done to test whether this elemental mercury can be permanently trapped and stored amid the soils and vegetation accreting wetlands. If successful and scaled-up, these water treatment methods and wetland management strategies can contribute greatly to achieving the mercury reduction targets mandated by the State-established TMDLs.

Under the San Francisco Bay Water Quality Improvement Fund, EPA has invested:
* $1.4 million toward the restoration of 390 acres of tidal marsh and related habitats under the Dutch Slough Restoration Project (Contra Costa County);
* $725,000 toward the restoration of 130 acres of tidal marsh under the South Bay Salt Pond Restoration Project; and

Under the ORD's Regional Applied Research Effort (RARE) grant program, EPA has invested:
* $90,000 toward the Twitchell Island studies advanced by USGS and profiled above.

All three of these projects have a methylmercury component, and EPA is coordinating internally and externally to ensure this environmental risk is properly managed and that lessons learned here can inform future restoration projects..

Regulating Pesticide Impacts under the CWA: Pesticide pollution is one of the most common causes of water quality impairment in California and in the Bay Delta Estuary. The State Water Board has listed all of the Bay Delta water bodies as impaired by pesticides under CWA §303d. Although pesticide use is closely associated with agriculture, more than half of the pesticides products regulated by the California Department of Pesticide Regulation (DPR) are for commercial, industrial, and residential use.

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The State has made progress toward establishing new water quality standards for pesticides, and toward incorporating urban runoff provisions in stormwater permits to control this large source of pesticide pollution. Through these stormwater permits, EPA and the Regional Water Boards are encouraging the incorporation of Low Impact Development (LID) measures in the design of new development and redevelopment projects to protect and improve water quality, promote groundwater recharge, and safeguard aquatic habitat.

Regulating Pesticide Impacts under FIFRA: It is more cost-effective and environmentally-protective to prevent pesticide discharges "up front" than to chase after the pollutants after they have been introduced into our watersheds using the tools provided by the CWA. Under the Bay Delta Action Plan, EPA has pledged to ensure that federal pesticide registration reviews (conducted every 15 years) under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) more fully consider California data on the potential adverse effects of pesticides on aquatic life.

The State of California has progressive programs, beyond the federal CWA and FIFRA, to address pesticide water quality issues, including the Regional Water Board's Irrigated Lands Regulatory Program and DPR's recently-finalized surface water quality regulations.

Selenium: Fish and wildlife resources in the Estuary are adversely affected by naturally-occurring selenium mobilized by agricultural practices, as well as selenium in refinery discharges. Selenium can bioaccumulate in certain fish and wildlife and lead to developmental deformities and low reproductive rates.

By December 2012, EPA will draft new site-specific numeric selenium criteria to protect species dependent on the Bay Delta Estuary, such as sturgeon, salmon, and diving ducks. More stringent criteria will reflect recent science on the Bay Delta food web, the diet of sensitive species, and hydrological conditions. These criteria (when finally adopted by California) will be implemented through permits (primarily the Bay area refineries) and nonpoint source control programs (agricultural runoff).

Much progress has been made since the mid-1990s to reduce loads of selenium into the San Joaquin River by the Grasslands Bypass Project. Promising on-farm measures include drip irrigation, salt tolerant crops, and the re-use of tailwater. Tangible progress has been made, but decades of work lie ahead.

Ammonia: Ammonia may contribute to toxic conditions for fish and invertebrates and/or inhibit primary productivity (food web). In December 2010, the Regional Water Board (Central Valley) issued a new permit to the Sacramento Regional County Sanitation District (District) whose waste water treatment plant (WWTP) comprises the largest source of ammonia discharges into the Delta. If this permit is upheld by the State Water Board, the WWTP will be upgraded over the next 10 years to remove ammonia from the effluent. In the meantime, the permit requires the District to develop a plan to reduce ammonia.

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Better water quality information: EPA is promoting a Regional Water Quality Monitoring and Assessment Program in the Central Valley. Much data is collected under existing programs, but they are not synthesized or interpreted in a way that allows agencies and NGOs to answer key environmental questions, set management priorities, or target investments.